



POLYCOM®

User's Guide Administrator's Guide



SoundStation® **VTX 1000**

OPERATION MANUAL

IMPORTANT SAFETY INSTRUCTIONS

When using your telephone equipment, the following safety precautions should always be followed to reduce the risk of fire, electric shock, and injury to people.

- ▼ Read and understand all instructions.
- ▼ Follow all warnings and instructions marked on the instrument.
- ▼ Installation must be performed in accordance with all national wiring rules.
- ▼ The outlet to which this apparatus is connected must be installed near the equipment, and must always be readily accessible.
- ▼ This instrument can be hazardous if immersed in water. To avoid the possibility of electrical shock, do not use the telephone equipment while you are in the bathtub or shower, or when you are wet. If you accidentally drop the equipment into water, do not retrieve it until you have first unplugged all cords. Do not reconnect the telephone equipment until it has dried thoroughly.
- ▼ Avoid using the telephone equipment during electrical storms in your immediate area. There is a remote risk of electric shock from lightning. Urgent calls should be brief. Even though protective measures may have been installed to limit electrical surges from entering your home or business, absolute protection from lightning is impossible.
- ▼ If you suspect a natural gas leak, report it immediately, but use a telephone away from the area in question. The telephone equipment's electrical contacts could generate a tiny spark. While unlikely, it is possible that this spark could ignite heavy concentrations of gas.
- ▼ Never push objects of any kind into the telephone equipment through housing slots as they may touch hazardous voltage points or short out parts that could result in a risk of electric shock. Never spill liquid of any kind on the telephone. If liquid is spilled, however, contact service personnel.
- ▼ To reduce the risk of electric shock, do not disassemble this telephone equipment. Opening or removing covers may expose you to hazardous voltages. Using incorrectly reassembled equipment can cause electric shock. If your telephone equipment does not work properly, refer to the section describing how to connect service. The support telephone number can be found on the outside back cover of this book.
- ▼ Never install telephone wiring during a lightning storm.
- ▼ Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
- ▼ Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected from the network interface.
- ▼ Always use caution when installing or modifying telephone lines.

SAVE THESE INSTRUCTIONS

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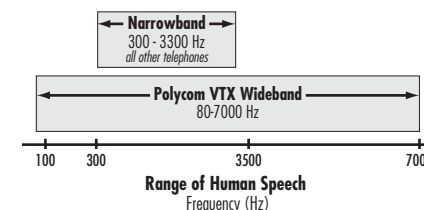
User's Guide



Introduction

Polycom Has Revolutionized Voice Conferencing... Again.

The revolutionary SoundStation VTX 1000™ is the world's first conference phone that *automatically* adapts to each meeting environment enabling amazingly clear voice quality for all participants.



The SoundStation VTX 1000 features:

- ▼ **Amazing Room Coverage**
Allows participants to *automatically* be heard by remote participants when speaking from 2ft or even 20ft away from the microphone.
- ▼ **Revolutionary Voice Quality**
If 2 SoundStation VTX 1000 units are connected together, the call *automatically* enters Wideband Mode delivering life-like presence via VTX Wideband!
- ▼ **Removes Annoying Background Noises**
Automatically reduces PC, projector fan, and other noises from the meeting room for clear sound quality.
- ▼ **Handset Quality Conference Calls**
Automatically turns off the mics that are furthest away from the speaker to remove the “in the well” sound.
- ▼ **Acoustic Clarity Technology**
Polycom's legendary technology that *automatically* allows two people to speak at the same time.
- ▼ **Maximum Configuration Flexibility**
Independent input and output, Bass/Treble controls, and internal mic and speaker control for multiple uses and applications including external speakers, so you can be assured that your conference provides amazingly clear voice quality for all participants.
- ▼ **SoundStation VTX 1000 is Future-Proof**
The SoundStation VTX 1000 platform also provides investment protection by enabling software downloads for future voice enhancements and other media collaboration applications.

SoundStation VTX 1000 Key Features Summary

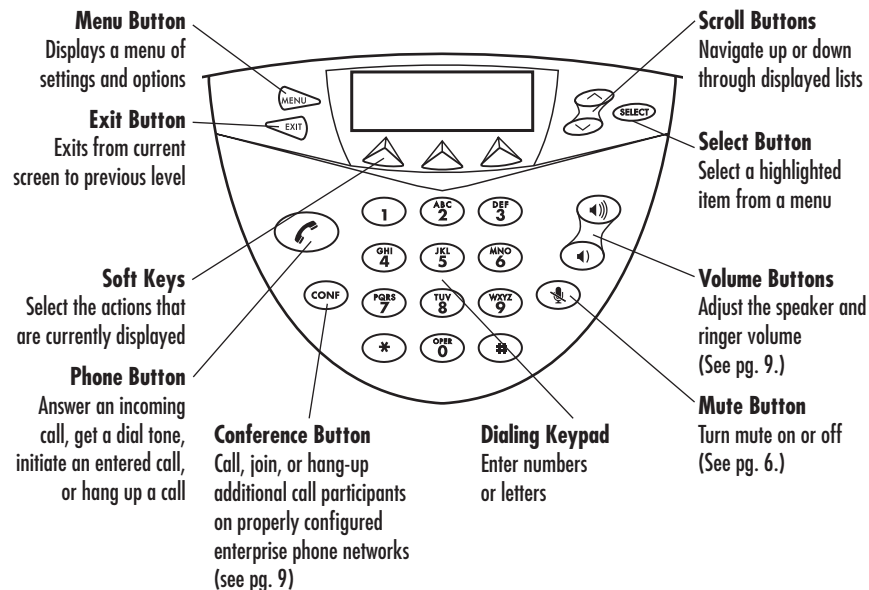
- | | |
|--|---|
| ▼ Automatic Gain Control | ▼ Dial-Up Software Download Functionality |
| ▼ High-Fidelity VTX Wideband | ▼ Backlit Graphical LCD |
| ▼ Dynamic Noise Reduction | ▼ Phone Book with Search/Sort Functions |
| ▼ Gated Microphones with Intelligent Microphone Mixing | ▼ Bass and Treble Controls |
| ▼ Acoustic Clarity Technology | ▼ And much more . . . |
| ▼ User Selectable Auxiliary Audio Input and Output Options | |

SoundStation VTX 1000 Interface

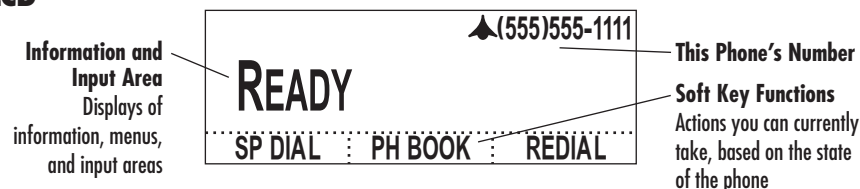
LEDs

- Green — Your call is in progress
 Blinking Green — A call is incoming.
 Red — Your call is muted.
 Blinking Red — Your call is on hold.

Buttons



LCD



Multipoint Conference Bridging

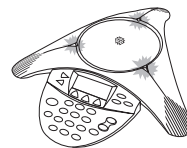
The SoundStation VTX1000 is a conference phone and can only perform multipoint bridged conference calls on a properly configured enterprise phone network or when multipoint calls are

placed through a conference bridge or a bridging service. Please contact your telephone system administrator for further details.

Manage a Call

Answer a Call

Press the (Phone) button to pick up an incoming call.



The three LEDs blink green when the phone rings.

When you answer a call from another VTX phone, your SoundStation VTX 1000 tests the quality of your line, and then initiates a wideband connection. This process takes 12 seconds, during which you hear music, and both ends of the call are unable to converse. The icon is displayed once a wideband connection has been established.

Note: If you have a high quality line you can change the line testing process from 12 seconds to 6 seconds. Please see page 36 for details, and refer to the troubleshooting guide for more information on line quality. The subwoofer (see "Using the VTX Subwoofer", pg. 22) allows you to experience the full spectrum of wideband sound.

Receiving an Additional Call

If you are on a call when another call is received, you may or may not hear a Call Waiting tone and/or see Caller ID.

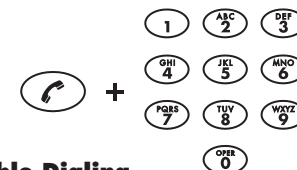
- ▼ If you are on a regular, narrowband call, and the most common types of Call Waiting and Caller ID* are ordinarily provided to you through your phone network, then these services will work in the usual way, as specified by your provider. (Note that it is not possible to join the incoming call to the ongoing one.)
- ▼ Important: If you are on a wideband call, Call Waiting and Caller ID are unavailable and Call Waiting signals will actually disrupt wideband operation, preventing you from maintaining a wideband connection. It is highly recommended that Call Waiting be disabled by the phone company (or PBX administrator) for lines used for VTX 1000 wideband calls.

* Namely, Telcordia (formerly Bellcore) Standard Type I Caller ID.

Dial a Call

You can dial a call the traditional way, getting a dial tone first, or you can dial the way cellular phones do, entering and editing all the numbers before you outpulse them, as shown below.

Speed Dial numbers are not supported by this method.



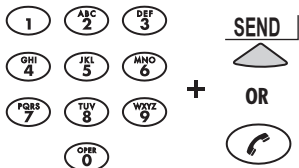
Dial Tone Dialing

- 1 Press the (Phone) button to get a dial tone.
- 2 Dial the phone number.
Each number is dialed when you press it.

Editable Dialing

- 1 Dial the phone number.
 - ▼ If you make an error, press the **<DEL** soft key to erase it.
 - ▼ If you want to cancel the call, press the **CANCEL** soft key.

- Press the  button or the **SEND** soft key, and the complete number will be dialed.



If you place a call to another wideband-capable phone,  will appear on your LCD, indicating that your call is benefitting from the enhanced audio quality of a wideband connection.

Note: The subwoofer (see “Using the VTX Subwoofer,” pg. 22) allows you to experience the full spectrum of wideband sound.

A wideband connection takes several seconds to establish. Music will play while you wait.

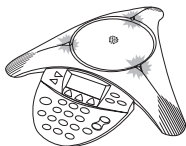
Mute and Unmute a Call

When a call is muted, you can hear the remote party, but they cannot hear you.

Mute

To mute a call, press the  (Mute) button.

A Muted Call



The three LEDs are red when a call is muted, and green when it is not.

Unmute

Press the  button again to unmute a call.

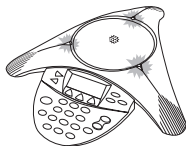
Hold and Resume a Call

When a call is on hold, you cannot hear your remote party, and they cannot hear you.

Hold

To hold a call, press the **HOLD** soft key.

Hold Soft Key During an Active Call

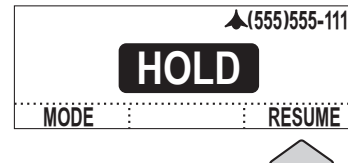


The three LEDs blink red when a call is on hold and are green when it is resumed.

Resume

Press the **RESUME** soft key to resume the conversation.

Resume Soft Key During a Held Call



End a Call

To end a call, press the  button.

- ▼ If you initiate a multi-point call, all calls will disconnect when you press the  button.

The duration of your ended call will be displayed for 6 seconds.



Redial a Call

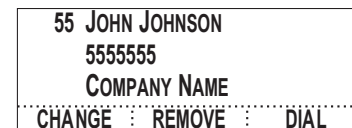
To redial the last number dialed out from the SoundStation VTX 1000, press the **REDIAL** soft key.

The screen will display the phone number of the party being dialed.



Dial a Call Using the Phone Book

Please refer to “Dial an Entry,” in the Phone Book section, pg. 12, for instructions on calling a number in your Phone Book.

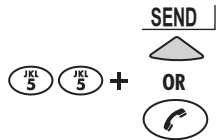


Speed Dial a Number

You can speed dial any entry in your Phone Book, in either of these ways:

Speed Dial Number First

- 1 Enter the 1- or 2-digit Speed Dial number.
- 2 Press the  button or the **SEND** soft key.

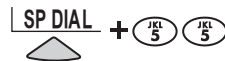


If a Speed Dial entry does not exist, a **NOT ASSIGNED** notice will appear. You can enter a new Speed Dial number or press the **CANCEL** soft key.

Note: For 1-digit numbers, you do not have to dial a leading 0 (e.g., for 02, you can also just press 2). Note: To create Phone Book entries and assign Speed Dial numbers, see “Add a New Entry,” pg. 13, and “Assign a Speed Dial Number,” pg. 14.

Soft Key First

- 1 Press the **SP DIAL** soft key.
- 2 Enter the 1- or 2-digit Speed Dial number (if you enter one digit, wait through the brief delay).



During an ongoing call:

- 1 Press the **CONF** button.

▼ If you prefer, you can press the **HOLD** soft key first, and then the **CONF** button. Either way, your original call is put on hold.

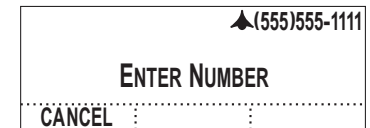
Important: If you have already connected as many parties as your system can support, then pressing **CONF** will drop the last party you connected. (This response is a function of how your phone company or PBX works, not the SoundStation VTX 1000.)

- 2 At the dial tone, enter the next party's phone number.

Note: Only conventional dialing is supported for added calls. Redial, Speed Dial, and dialing from the Phone Book are unavailable.

- 3 When the next party has answered, press the **CONF** button again, or the **JOIN** soft key to join all the calls, so all parties can hear and speak to each other.

*Note: All multi-party calls are narrowband calls. When you press the **CONF** button to add another party, any wideband connection you may have with your first party will revert to narrowband, and you will no longer see the  symbol on your display. Your connection will also revert to narrowband if another party picks up a phone connected in parallel with your SoundStation VTX 1000. The **CONF** key provides identical functionality to **FLASH** or **R** on most phone networks.*



*Note: If you change your mind before beginning to enter a phone number, press **CONF** again or the **CANCEL** soft key to return to your on-hold call, then press the **RESUME** soft key to reactivate that call, if you placed the caller on hold prior to pressing **CONF**.*

Add a Call

If your phone system provides one of the typical forms of multi-party call conferencing, then you can establish multi-party calls with your SoundStation VTX 1000, as described next.

- ▼ Please check with your System Administrator (not Polycom) to determine the number of parties that can be conferenced together, given your phone system's multi-party capabilities.
- ▼ If you cannot connect multiple parties using the method described below, please check with your System Administrator (not Polycom).

Your System Administrator may need to activate multi-party conferencing features, adjust the Flash Timing (as described in “Flash Timing,” pg. 36), or provide you with instructions specific to your phone system.

- ▼ If your phone line supports Call Waiting, you can answer an incoming call using the **CONF** button, but the incoming call cannot be joined into the existing call. Only outgoing calls can be joined into a multi-point call.

Adjust Volumes

Adjust Speaker Volume

While the phone is in active use, press the  button to lower the speaker volume, and the  button to raise the speaker volume.

Adjust Ringer Volume

While the phone is in a ready state (not actively in use), press the  button to lower the ringer volume and the  button to raise the ringer volume.

Adjust Dial Tone

While the phone is in ready state, press the button to get dial tone, then use  and  to adjust the volume up or down.



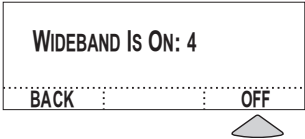
Turn Wideband Off

To turn wideband off

- 1 Press the **MODE** soft key.



- 2 Press the **OFF** soft key (or press the **BACK** soft key to return to the Call Screen without turning wideband off).



- 3 Press the **BACK** softkey (or wait several seconds) to return to the Call Screen.

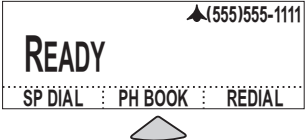
Use the Phone Book

Access the Phone Book

To access the Phone Book, use either of these methods:

Soft Key

Press the **PH BOOK** soft key if it is on your screen.



Menu

Press the **MENU** button, use the **✓** button to highlight "Phone Book," and press the **SELECT** button.

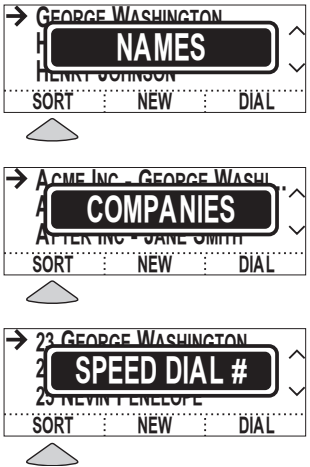


Sort the Entries

Press the **SORT** soft key to cycle through the entry views by name, company, or Speed Dial number.

- ▼ When you access the Phone Book, the entries are listed in order by name, with the first entry name highlighted.

Note: When sorted by company, entries that lack company data are displayed at the top of the list, with the name in brackets.



Find an Entry

You can look through the entries using the ^ or v buttons, or you can jump to them using the number buttons.

Find Name

To jump to the entries that begin with a particular letter, press the number button with that letter on it.

▼ Press the same number button again to jump to the entries that begin with each of its letters; e.g., pressing 3 repeatedly will jump to D, E, F, D, etc.

Note: Jumping by letter works when the entries are listed by name or by company.

DEF 3

→ DENNIS GRAY
DEREK BROWN
DONALD WILSON

SORT NEW DIAL

DEF 3

→ EARL EDWARDS
ELIZABETH GRASON
ELLIOT RAY

SORT NEW DIAL

DEF 3

→ FELIX MASON
FIONA FERGUSON
FRANK JAMES

SORT NEW DIAL

→ AARON JONES
ANDREW ADAMS
BETTY SMITH

SORT NEW DIAL

Find Speed Dial Number

To jump to an entry with a particular Speed Dial number:

1 Make sure the entries are sorted by Speed Dial number (see “Sort the Entries,” above).

2 Press the number buttons to jump to the entry with the 1- or 2-digit Speed Dial number you select.

▼ For 1-digit numbers, you do not have to dial a leading 0 (e.g., for 02, you can also just press 2).

▼ For 2-digit numbers, press both digits in succession, ignoring the jump that occurs when you enter the first digit.

ABC 2

→ 02 CHRIS R
03 MATT SMITHE
04 ANDREW ADAMS

SORT NEW DIAL

DEF 3

→ 23 GEORGE WILLIAM
24 HAROLD SMITH
25 JIM SHOE

SORT NEW DIAL

Dial an Entry

Entries in the Phone Book can be automatically dialed.

1 Highlight the entry you want to dial. (See “Find an Entry,” above.)

2 Press the DIAL soft key.

You will see and hear the call being dialed.

Note: You can also access the DIAL soft key after selecting an entry with the SELECT button.

Note: If another call is ongoing, the DIAL soft key will not appear.

Dial From a List

→ GEORGE WILLIAM
HAROLD SMITH
HENRY JOHNSON

SORT NEW DIAL

Dial From a Selected Entry

23 GEORGE WILLIAM
555555678
ACME INC.

CHANGE REMOVE DIAL

Add a New Entry

To add a new entry:

1 Press the NEW soft key.

2 Enter a name, using the number buttons.

Character Entry

For each letter you want, press the number button that has that letter on it. Press the same button repeatedly to cycle through the letters on that button; e.g., pressing 3 repeatedly will display D, E, F, 3, D, etc.

Advance a Character

For the next letter, press another number key. The cursor will advance automatically. To enter the same character, wait for 3 seconds then press the same key again.

Add a Space

Press the SPACE soft key (when available).

Delete a Character

Press the < DEL soft key

3 Press the v button, and enter the phone number, using the number buttons.

Pressing the PAUSE soft key will insert a 1.5 second pause (shown as a comma), which is often necessary when dialing from a PBX (or other enterprise) system that requires a prefix such as 9 for an external call.

4 If desired, press the ^ button again and enter a company, as above.

(You can continue to move among the fields with the ^ or v buttons.)

23 CHARLES WHITE
5555559876

CHANGE REMOVE DIAL

NAME: |
PH #:
CO:

CANCEL

NAME: CHARLES |
PH #:
CO:

< DEL SPACE SAVE

NAME: CHARLES WHITE
PH #: 5555559876
CO:

< DEL PAUSE SAVE

5 Press the **SAVE** soft key.

- ▼ The **SAVE** soft key appears once you have entered data in the name and phone number fields.
- ▼ When you press the **SAVE** soft key, your entry will automatically be assigned the lowest available SpeedDial number.

NAME: CHARLES WHITE		
PH #: 5555559876		
CO:		
< DEL	PAUSE	SAVE

6 Press the **OK** soft key, to accept the displayed Speed Dial number.

You will be returned to the Phone Book list, with your new entry included.

Note: To assign a different Speed Dial number, see "Assign a Speed Dial Number," below.

CHARLES WHITE	
SPEED DIAL #: 24	
BACK	OK

Assign a Speed Dial Number

If you do not want to use the automatically assigned Speed Dial number (above), you can change it.

Enter the desired Speed Dial number with the number buttons, or use the $\wedge$ or $\vee$ buttons to scroll through available Speed Dial numbers.

- ▼ If you choose a Speed Dial number that has already been assigned to another entry, you will be asked whether you wish to reassign the Speed Dial number to the new entry. Press **OK** to do so and return to the Phone Book list, or **CANCEL** to back up one screen and choose another number.

CHARLES WHITE	
SPEED DIAL #: 24	
BACK	OK

DEF 3	CHARLES WHITE	
GHI 4	SPEED DIAL #: 34	
	BACK	OK

CHARLES WHITE	
SPEED DIAL #: 28	
BACK	OK

To leave the New Entry screen without saving, press the **EXIT** button. You will be returned to the Phone Book list.

Edit an Entry

- 1 Highlight the entry you want (see "Find an Entry," pg. 12), and then press the **SELECT** button.
- 2 Press the **CHANGE** soft key.
- 3 Proceed to edit the contents as described in "Add a New Entry," pg. 13.

23 CHARLES WHITE		
5555559876		
CHANGE	REMOVE	DIAL

Remove an Entry

- 1 Make sure that the entry you want is highlighted (see "Find an Entry," pg. 12), and then press the **SELECT** button.
- 2 Press the **REMOVE** soft key.
- 3 You'll be asked to confirm by pressing **OK** before the entry is removed and you are returned to the Phone Book list. If you don't wish to remove the entry, press the **CANCEL** soft key instead, and the entry will be kept.

23 CHARLES WHITE		
5555559876		
CHANGE	REMOVE	DIAL

REMOVE FROM PH BOOK?		
23 CHARLES WHITE		
CANCEL	OK	

Exit the Phone Book

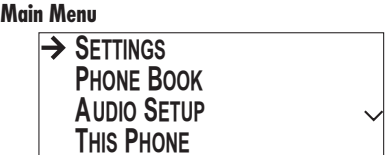
In the entry view press the **EXIT** button to return to the Phone Book list view. Use **EXIT** to move from the Phone Book list view back to the Ready Screen, the Call Screen, or another previous display.

Adjust the Settings

Access the Settings

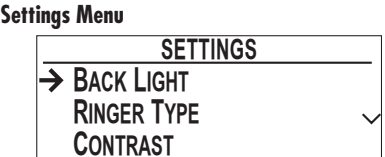
Press the **MENU** button. With “Settings” highlighted, press the **SELECT** button.

The Settings Menu will appear.



Select a Setting to Display

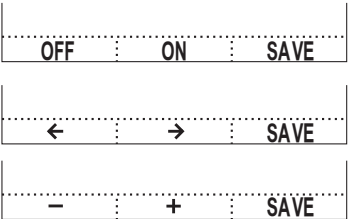
From the Settings Menu, use the **^** or **v** buttons to highlight the desired setting, and press the **SELECT** button.



Adjust a Setting

- 1 Depending on the setting, use your soft keys to
- ▼ Turn the **BACK LIGHT** **OFF** or **ON**
 - ▼ Select a **RINGER TYPE** (**←** or **→**)
 - ▼ Adjust the screen **CONTRAST** (**–** or **+**)

*Note: You can also use the **^** or **v** buttons to cycle through each setting's options.*

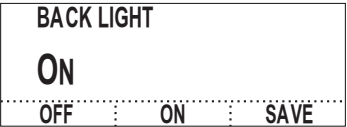


- 2 Important: Press the **SAVE** soft key or **SELECT** button to apply the new adjustment and return to the Settings Menu. Otherwise, you can use the **EXIT** button or **MENU** button to return to the Settings Menu or Main Menu, but your new setting will not be saved.

Details of each setting's purpose and options follow.

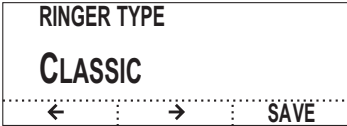
Back Light

The SoundStation VTX 1000 screen offers back lighting for easy viewing in dim light environments. Use this setting to turn the back light use display style **ON** or **OFF**.



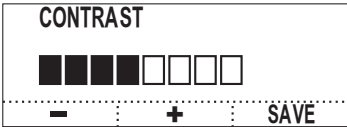
Ringer Type

You can select from 10 ringer options and **OFF** for Sound Station VTX 1000. Each ringer type is briefly auditioned when it is first displayed while pressing the **←** or **→** soft keys.



Contrast

To adjust the visibility of the screen, increase or decrease contrast with the **–** or **+** soft keys.

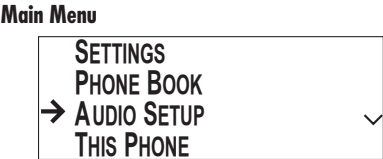


Adjust the Audio Setup

Access the Audio Settings

Press the **MENU** button. Use the **v** button to highlight “Audio Setup,” then press the **SELECT** button.

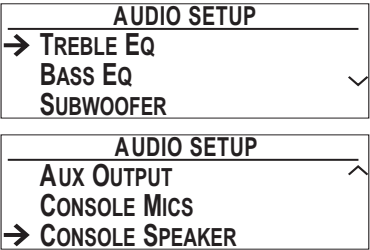
The Audio Setup Menu will appear.



Select a Setting to Display

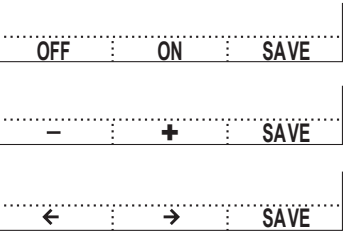
Use the **^** or **v** buttons to highlight the desired setting, and press the **SELECT** button.

Audio Setup Menu



Adjust an Audio Setting

- 1 Depending on the setting, use your soft keys to
 - ▼ Adjust the **TREBLE** (– or +)
 - ▼ Adjust the **BASS** (– or +)
 - ▼ Indicate the presence and type of **AUX INPUT** device (**←** or **→**)
 - ▼ Indicate the presence and type of **AUX OUTPUT** device (**←** or **→**)
 - ▼ Turn the **CONSOLE MICS** **OFF** or **ON**
 - ▼ Turn the **CONSOLE SPEAKER** **OFF** or **ON**
 - ▼ Turn the **AUTOMATIC GAIN CONTROL** **OFF** or **ON**
 - ▼ Turn the **NOISE REDUCTION** **OFF** or **ON**



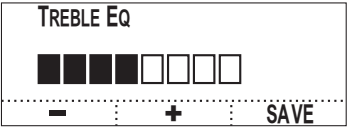
*Note: You can also use the **^** or **v** buttons to cycle through each setting's options.*

- 2 Important: Press the **SAVE** soft key or **SELECT** button to apply the new adjustment and return to the Audio Setup Menu. Otherwise, you can use the **EXIT** button or **MENU** button to return to the Audio Setup Menu or Main Menu, but your new setting will not be saved.

Details of each setting's purpose and options follow.

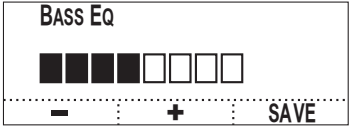
Treble EQ

The Treble Equalizer adjusts the tone of the high frequency sound from the speakers. Use this setting to adjust the sharpness of the sound – (down) or + (up).



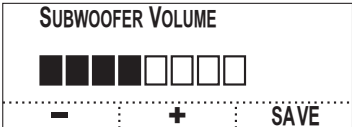
Bass EQ

The Bass Equalizer adjusts the tone of the low frequency sound from the speakers. Use this setting to adjust the amount of bass – (down) or + (up).



Subwoofer Volume

The subwoofer volume adjusts the volume of low frequency sound from the subwoofer and is used in concert with the Bass EQ to drive the appropriate low frequency level for the room (80-300 Hz). When the system is balanced, users should not perceive any sound coming from the subwoofer during normal operation, and the speech from the console speaker should sound warm and natural. Use this setting to adjust the amount of subwoofer volume – (down) or + (up).



Aux Input

Besides its built-in microphones and extension microphones, the SoundStation VTX 1000 can also accept audio input from external sources, such as an external wireless microphone or microphone mixer. (See “Using the Extension Microphones,” pg. 22, for one option, and see “Connection Diagram,” pg. 31, for installation.) To use these optional devices, the Aux Input setting must reflect the device connected. If no external source is in use, you can turn Aux Input **OFF**, if you prefer.

POLYCOM WIRELESS MIC, OTHER INPUT, OFF

Note: For specifications related to auxiliary input, see “Aux In and Aux Out Specification Table,” pg. 40.



Aux Output

The SoundStation VTX 1000 combines sound from you and your remote party(s), and can output that sound to a subwoofer, or to another external audio device, such as a tape recorder or P.A. (public address) system. (See “Using the VTX Subwoofer,” pg. 22, for one option, and see “Connection Diagram,” pg. 31, for installation.) For these optional devices to work appropriately, the Aux Output setting must reflect whether a subwoofer or other device is connected.

**OFF, SUBWOOFER, EXT SPEAKER,
RECORD OUT**

Note: Connections to some third party audio output devices may impair full duplex performance.

AUX OUTPUT		
SUBWOOFER		
←	→	SAVE

Console Mics

When using external microphones, you might prefer to turn off the SoundStation VTX 1000's console microphones. Use this setting to turn the console microphones **OFF** or **ON**. (Using this setting does not turn the extended microphones **OFF** or **ON**, so they should be disconnected if not required. Turning console mics **OFF** does not affect any other mics you may have connected to the AUX IN port.

CONSOLE MICS		
ON		
OFF	ON	SAVE

Console Speaker

When using external speakers, you might prefer to turn off the SoundStation VTX 1000's console speaker. Use this setting to turn the console speaker **OFF** or **ON**.

CONSOLE SPEAKER		
ON		
OFF	ON	SAVE

Automatic Gain Control

During a call, Automatic Gain Control can be turned **OFF** from the default **ON** setting to reduce the amount of audio pick-up in the room if side conversations become a problem for the far-end party. This feature is also useful for demonstrating the benefits of Automatic Gain Control. Once the desired setting is selected, press the **SAVE** soft key to activate that setting.

AUTOMATIC GAIN CONTROL		
ON		
OFF	ON	SAVE

Noise Reduction

During a call, Noise Reduction can be turned **OFF** to demonstrate the benefits of this feature. Once the desired setting is selected, press the **SAVE** soft key to activate that setting.

NOISE REDUCTION		
ON		
OFF	ON	SAVE

View Phone and Software Information

To view information about your phone:

1. Press the **MENU** button.
 2. Press the **▼** button to highlight “This Phone,” then press the **SELECT** button.
 3. With “Location and Number” selected, press the **SELECT** button to display your phone's location and phone number.
- OR

Press the **▼** button to highlight “System Info,” then press the **SELECT** button to display your phone's software version and date, hardware version, and serial number.

Press the **EXIT** button to step back through the submenu and Main Menu, and again to return to the Ready Screen.

THIS PHONE
→ 1. LOCATION AND NUMBER
2. SYSTEM INFO

MAIN CONFERENCE ROOM (555) 555-1111
--

VTX.00.02.035 JAN 22 2003 CONSOLE FPGA REV.: A SERIAL #1146270302

Peripheral Devices

Using the VTX Subwoofer

The SoundStation VTX Subwoofer allows you to experience the full spectrum of wideband sound and provides the low-frequency output that optimizes speech intelligibility and distinguishability.

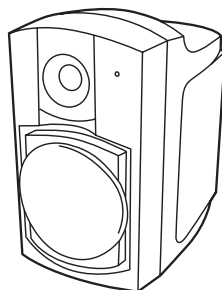
To install the VTX Subwoofer, see the Connection Diagram on page 31.

Once it is connected, if you experience any problems with sound output, access the Audio Setup (as described on pg. 17) and restore Aux Output (pg. 19) to **SUBWOOFER** (which is the default setting).

Note: When the subwoofer is properly balanced, users should not perceive sound to be coming out of the subwoofer itself. Instead, users should perceive the sound to be coming from the console speaker only, with the subwoofer adding warmth (bass) to the overall sound in the room. If users perceive sound to be coming from the subwoofer, then either the Bass EQ or subwoofer volume control, or both, are

set too high. In large rooms or highly absorbent rooms, extra energy may be required from the subwoofer. Use the Bass EQ and Subwoofer volume controls in the Audio Setup menu to balance the system. If you suspect problems with the subwoofer, follow the External Speaker Test instructions on page 40.

You can control the treble and base tones in the Audio Setup's Treble EQ and Base EQ screens, as described on pg. 19.



Using Extension Microphones

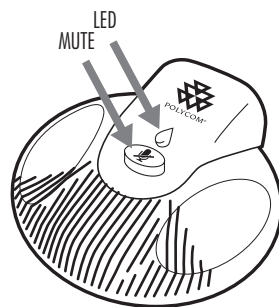
Your SoundStation VTX 1000 can provide greater microphone coverage in larger conference rooms with the addition of Extension Microphones. If not purchased with your SoundStation VTX 1000, these SoundStation VTX 1000 Extension Microphones are available as an accessory from your Polycom Distributor.

To mute all microphones from an Extension Microphone, press . (When a call is muted, you can hear the remote party, but they cannot hear you.) All system LEDs will turn red to indicate the mute status. To resume two-way communication, press  again. All the red LEDs will return to green.

LED

Green — Your call is in progress.

Red — Your call is muted.

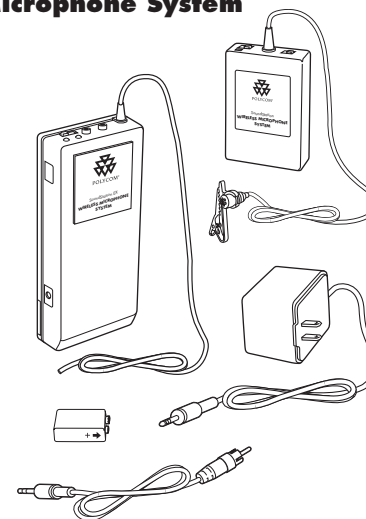


Using the Polycom Wireless Microphone System

Your SoundStation VTX 1000 can integrate with an optional Wireless Microphone System for presenters who stand or are mobile. If not purchased with your SoundStation VTX 1000, this Polycom Wireless Microphone System is available as an accessory from your Polycom Distributor.

For information about the components and setup of a Polycom Wireless Microphone System, as well as directions for its use, please refer to the User Guide that ships with it.

Note: The Polycom Wireless Microphone System is available only in North America.



Troubleshooting

No Dial Tone

- ▼ Check that all connections are tight and in place.
- ▼ Make sure all connections are correct. (See "Connection Diagram," pg. 31.)
- ▼ Make sure that the console speaker is enabled. Refer to page 20.

SoundStation VTX 1000 Does Not Ring

- ▼ Check that the ringer is not turned off. (See "Ringer Type," pg. 17.)
- ▼ If the volume is turned all the way down, increase the volume with the  button.
- ▼ Make sure that the console speaker is enabled. Refer to page 20.

Cannot Connect In Wideband Mode

- ▼ You must be connected to another SoundStation VTX 1000 to enter wideband mode.
- ▼ Modem Train Time: The short train mode (6 seconds) should only be used on high quality phone lines. If you consistently have problems achieving wideband mode, set the modem train time to long (12 seconds). Refer to page 36.
- ▼ Bridged Calls: Wideband mode currently does not work with external conference bridges (i.e. multiple calls).
- ▼ Line Quality: The VTX 1000's modem operates in two modes, wideband voice mode and software download mode. In software download mode, the modem connects at higher rates, typically those rates achieved with a data modem on the same lines. However, in wideband mode, the connection rate is optimized for reliability rather than speed. The maximum rate used for wideband is 19.2 kbps while the maximum rate for software download is 33 kbps.

Poor line quality can prevent connections in wideband mode. The VTX 1000 will connect in wideband mode on connections as low as 12 kbps. However, if the line quality does not consistently support 12 kbps, the unit will connect in narrowband mode. This will be the case if your local loop is longer than 12,000 feet. Also, this can be the case with shorter loops if there is a problem on the line. Please contact your local phone company for resolution. In general, a typical data modem should be able to achieve 24 kbps connections in order to support a VTX call.

In order to test your line quality, perform the following test: Configure a VTX 1000 which has a good line as a software download server in accordance with instructions on page 44. Configure the unit with the line problems to receive a software download from the unit configured as a download server.

When the software download starts, note the connect rate that is displayed as the connection is established. You may cancel the software download once the connect rate has been displayed. If the software download connect rate is below 19.2 kbps, the line will not support wideband calls.

▼ Call Waiting: Call Waiting signals will interfere with wideband operation. It is highly recommended that Call Waiting be disabled by the phone company (or PBX administrator) for lines used for VTX 1000 wideband calls.

No Caller ID

Caller ID is supported only through your local phone company and only if you have subscribed to Caller ID service.

PBX (and other enterprise phone system Caller ID), which is proprietary, is not supported.

Type II "Caller ID on Call Waiting" is not supported, only Type I.

Flickering LCD

If your screen appears to flicker, it may be because you are using a certain type of older fluorescent

lighting in your building. Move the SoundStation VTX 1000 away from the lights or replace the lights.

Quick Keypad Input Is Not Registered

- ▼ Press the buttons more slowly. Because of system responsiveness, some buttons may not be recognized if you press them quickly.

If the problem you are experiencing is not resolved here, please contact your System Administrator.

Muffled or "In a Well" Reception

This is caused by highly reverberant rooms and people speaking too far from a mic.

- ▼ Speak closer to the unit so the microphones can pick up your speech.

- ▼ Add more sound absorbency to the room.

Variable Sound Quality

- ▼ You will enjoy the highest sound quality when you are on a wideband call, which you can determine by the presence of  on your screen.

- ▼ If you are on a multi-party call, or a call with a party whose phone is not wideband enabled, your SoundStation VTX 1000 establishes a narrowband call, and you may notice a change in sound quality.

Problematic Sound Quality or No Sound

- ▼ If sound quality is problematic, or there is no sound, first determine whether any external audio output devices are in use, such as a subwoofer, PA system, or tape recorder.
- ▼ If such devices are in use, check that all the connections are secure. (See "Connection Diagram," pg. 31.) Then, access the Audio Setup (as described on pg. 17) and make sure that Aux Output (pg. 19) is set correctly. If a Subwoofer is in use, set Aux Output to **SUBWOOFER**. If any other device is in use, set Aux Output to **EXT SPEAKER**, **RECORD OUT**, or **OFF**.

Excessive Noise

- ▼ Noisy equipment, such as a computer or fan, may make it difficult for you to hear the other party. Both parties should turn off any noisy equipment.
- ▼ Try calling again to see if another line provides a better connection.

Remote Party Cannot Hear You

- ▼ If a remote party cannot hear you at all, cannot hear you well, or cannot hear you via particular microphones, first determine whether any external audio input devices are in use, such as a wireless microphone or mic mixer.
- ▼ If such devices are in use, check that all the connections are secure. (See "Connection Diagram," pg. 31.) Then, access the Audio Setup (as described on pg. 17) and make sure that Aux Input (pg. 19) is **ON**, so that input from these devices is recognized.
- ▼ If such devices are not in use, access the Audio Setup (as described on pg. 17) and make sure that Console Mics (pg. 20) are **ON**.
- ▼ If the only such devices in use are the VTX's Extended Microphones, access the Audio Setup (as described on pg. 17) and make sure that Console Mics (pg. 20) are **ON**. This setting controls both the internal microphones and the Extended Microphones.

Reverting to Narrowband

- ▼ All multi-party calls are narrowband calls. When you press the **CONF** button to add another party, any wideband connection you may have had with your first party will revert to narrowband, and you will no longer see  on your screen.
- ▼ Your connection will also revert to narrowband if another party picks up a phone which is connected in parallel with your SoundStation VTX 1000.
- ▼ Excessive noise on the line will also cause the phone to automatically switch to narrowband. If this problem persists, contact your phone line telephone service provider or system administrator. VTX 1000 is designed to provide wideband service on business quality phone lines.

Short Silences, Echoes, or Clipped Speech

- ▼ Do not move the SoundStation VTX 1000 console while it is in use.
- ▼ Keep your hands away from the unit during calls.
- ▼ Keep papers, cups, coffee pots, etc., away from the unit.
- ▼ At the beginning of a call, let someone at each location speak in turn for a few moments, to enable SoundStation VTX 1000 to adapt to its environment.
- ▼ The other party may be using lower-quality equipment or a half-duplex conference bridge, in which case there may be little you can do.
- ▼ Try calling again to see if another line provides a better connection.

Physical Damage

- ▼ If physical damage is severe enough that the internal parts become visible, disconnect the SoundStation VTX 1000 immediately. Do not reconnect it to the telephone network until the SoundStation VTX 1000 has been repaired.

For Best Performance

Your SoundStation VTX 1000 performs optimally when you follow these guidelines:

- ▼ Position the SoundStation VTX 1000 in the center of a conference table or desk.
- ▼ Do not move the SoundStation VTX 1000 while on a call.
- ▼ Do not shuffle papers near the SoundStation VTX 1000.
- ▼ Position extended microphones 7 feet from the SoundStation VTX 1000 console.
- ▼ Speak at normal conversation levels, and direct your voice toward the SoundStation VTX 1000, or toward the extended microphone.

Maintenance

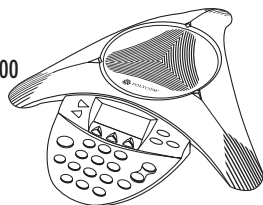
Unplug all cords from the modular wall jack before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

Administrator's Guide

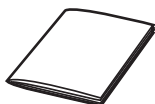


Your SoundStation VTX 1000 audio conferencing system includes the following items:

SoundStation VTX 1000



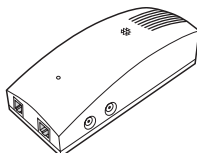
This Operation Manual



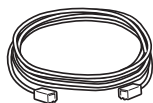
Phonejack Cable



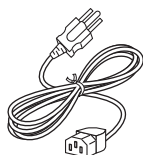
Interface Module



RJ 45 Cable

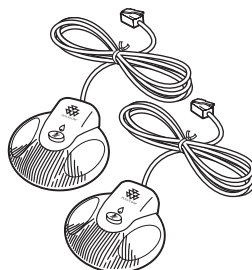


Interface Module
Power Cord
(Yours may differ.)

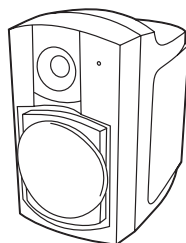


If any of the above parts is missing,
please contact your Polycom
representative or authorized dealer.

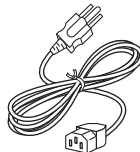
Extension Microphones



Subwoofer



Subwoofer Power Cord

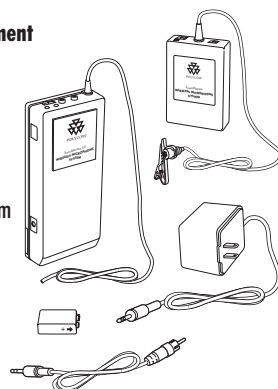


Subwoofer Audio Cord



Optional Equipment

**Wireless
Microphone System
(Available only in
North America)**



Power cables may differ.

For future applications

Position subwoofer on floor - not on tabletop

Extend microphones completely for best performance

Power cables may differ.

~~For future applications~~

Position subwoofer
on floor - not on
tabletop

Extend microphones completely
for best performance

Administrative Setup Overview

The following items are part of the Administrative Setup area.

1. Location

1 Location Name	Enter a name for this SoundStation VTX 1000's location.
2 This Phone #	Enter this SoundStation VTX 1000's telephone number.

2. Phone System

1 Flash Timing	Set the flash delay to 75, 100, 300, or 600 milliseconds.
2 Caller ID	Turn Caller ID (if available) on or off.
3 Modem Setup	Select short train time (6seconds) for high quality line or long train (12 seconds) otherwise.
4 Wideband Monitor	Selecting "ON" (default) monitors wideband calls for line quality degradation.

3. Passcode

Set whether or not to require a passcode, and assign a new passcode.
--

4. Diagnostics

1 Mic Test	View the relative level of the sample received by each individual microphone.
2 Console Spkr (Speaker) Test	Select acoustic test signals to drive through the SoundStation VTX 1000 speakers
3 Ext Spkr Test (External Speaker)	Select acoustic test signals to drive through external audio output devices, such as speakers, PA systems, etc.
4 Modem Statistics	View the SoundStation VTX 1000 modem performance for the last call that made use of a modem connection.
5 Restore Defaults	Completely eliminate all settings and data that have been entered since the phone was first installed and restores original default settings.

5. Software

1 Upgrade Software	Dial in to download updated software directly to the SoundStation VTX 1000.
2 Configure Dialing Number	Enter the number to be dialed to upgrade software.
3 Configure as DL Server	Activate or deactivate the SoundStation VTX 1000's capability to provide software upgrades to other VTXs that call it.

The following pages explain how to access, select, adjust, use, and exit these settings and functions.

Access Administrative Setup

Press the **MENU** button. Use the **▼** button to highlight **ADMIN SETUP**, then press the **SELECT** button.

No Passcode Assigned

If there is no Passcode assigned, the Admin Setup Menu will be displayed.

ADMIN SETUP	
→ 1. LOCATION	
2. PHONE SYSTEM	▼
3. PASSCODE	
4. DIAGNOSTICS	
5. SOFTWARE	

Passcode Assigned

If there is a Passcode assigned, use the number keypad to enter your 3-digit code, and then press **ENTER**.

ADMIN SETUP	
PASSCODE:	
CANCEL	<DEL ENTER

▼ Use the **CANCEL** soft key to return to the Main Menu.

▼ If you make an error, press **<DEL** to delete characters.

Caution: Be sure to write down your passcode in a safe place in case you forget it. If you cannot remember or find your passcode, please contact Polycom Support at www.polycom.com/support and click on "How to Contact Support and Service" for your local support contact information.

Note: You can set whether or not to require a passcode in the "Passcode" section, pg. 37.

INCORRECT PASSCODE	
PASSCODE:	
CANCEL	<DEL ENTER

If you enter an incorrect passcode, the digits you entered will disappear and you will be returned to the Admin Setup menu to re-enter your passcode.

Select an Item to Display

Standard Selection

Use the **▲** or **▼** buttons to highlight the desired item, and press the **SELECT** button.

ADMIN SETUP	
→ 1. LOCATION	
2. PHONE SYSTEM	▼
3. PASSCODE	
4. DIAGNOSTICS	
5. SOFTWARE	

Selection Shortcuts

For quick selection of the desired item, press its number on the keypad.

▼ Some Admin Setup sections have submenus, which are also numbered for quick selection, so you can enter a two-digit number for quickest access. For example, pressing **2 3** at the main Admin Setup Menu will select the **2. PHONE SYSTEM** submenu's **3. MODEM SETUP** item.

Administrative Setup Navigation Overview

From the Admin Setup Menu

ADMIN SETUP

→ 1. LOCATION

2. PHONE SYSTEM

3. PASSCODE

4. DIAGNOSTICS

5. SOFTWARE

- SELECT** button
- Display the Submenu or Item Screen of the current selection.
- EXIT** button
- Return to the Main Menu.

From a Submenu

LOCATION

→ 1. LOCATION NAME

2. THIS PHONE #

(i.e., the Location Submenu, Phone System Submenu, Diagnostics Submenu or Software Submenu)

- SELECT** button
- Display the Item Screen of the current selection.
- EXIT** button or **MENU** button
- Return to the Admin Setup Menu or Main Menu.

From an Item Screen

LOCATION NAME

CONFERENCE ROOM B|

< DEL

SPACE

SAVE

(i.e., a Location screen, Phone System screen, Passcode screen, Diagnostics screen, or Software screen)

- SELECT** button or **SAVE** soft key
- Apply the new setting, information, or adjustment and return to the previous menu.
- Note: For Passcode screens, this is the Admin Setup Menu, while for all the other subscreens, it's the corresponding submenu.*
- EXIT** button
- Return to the previous menu without saving your new settings, information, or adjustments.
- Note: For Passcode screens, this is the Admin Setup Menu, while for all the other subscreens, it's the corresponding submenu.*
- MENU** button
- Return to the Main Menu without saving your new settings, information, or adjustments.

Enter Location Information

Location Name

Use the number keypad to enter a location name, which will be displayed when "This Phone" is selected from the Main Menu.

LOCATION

→ 1. LOCATION NAME

2. THIS PHONE #

Character Entry

Character Entry

For each letter you want, press the number button that has that letter on it. Press the same button repeatedly to cycle through the letters on that button; e.g., pressing **3** repeatedly will display **D, E, F, 3, D**, etc.

Advance a Character

To enter the same character, wait for 3 second then press the same key again.

Add a Space

Press the **SPACE** soft key (when available).

Delete a Character

Press the **< DEL** soft key.

LOCATION NAME

CONFERENCE ROOM B|

< DEL

SPACE

SAVE

This Phone #

Use the number keypad to enter this SoundStation VTX 1000's phone number.

- ▼ If you make an error, use the **<DEL** soft key to erase it.

THIS PHONE #

5554321|

< DEL

SAVE

Save

Important: Press the **SAVE** soft key or **SELECT** button to retain the new location name and return to the Location Submenu. Otherwise, you can use the **EXIT** button to return to the Location Submenu, or the **MENU** button to return to the Main Menu, but your new location will not be saved.

Phone System

Flash Timing

You can adjust the timing of the Flash delay to 75, 100, 300, or 600 milliseconds. Use the ← and → soft keys or the ^ or v buttons to cycle through these Flash Timing options. Press the **SAVE** soft key to save the change.

FLASH TIMING			KEY
600 MSEC			
←	→	SAVE	

Caller ID

If available, you can turn Caller ID **ON** or **OFF** with your soft keys or the ^ or v buttons. Press the **SAVE** soft key to save the change.

CALLER ID			KEY
OFF			
OFF	ON	SAVE	

Modem Setup

The ability for two SoundStation VTX 1000s units to connect in wideband mode is largely dependent on telephone line quality. The longer the “training” time (the time between when two VTX phones connect until a wideband call is established) the higher the probability two SoundStation VTX units can establish a wideband call, even on relatively poor quality phone lines.

SoundStation VTX 1000 assumes poor line quality by default, defaulting to a Long Training Time of 10 - 12 seconds. However, a Short Training Time can be configured on higher quality phone

lines, such as analog lines on enterprise telephone systems (PBXs, etc.), in order to save wideband connection time.

- ▼ Training time can be decreased to 4 - 6 seconds by selecting **SHORT**, then pressing **SAVE** to save the change. If Short Training Time does facilitate consistent connections in wideband mode, return SoundStation VTX 1000 to **LONG** Training Time.

MODEM SETUP			KEY
SHORT TRAINING TIME			
SHORT	LONG	SAVE	

MODEM SETUP			KEY
LONG TRAINING TIME			
SHORT	LONG	SAVE	

Wideband Line Quality Monitor

During the course of a wideband call line quality on a telephone network can degrade, which can impact the clarity and overall audio quality of a VTX Wideband call. SoundStation VTX 1000s Wideband Line Quality Monitor will automatically revert a wideband call to narrowband mode if significant line quality degradation is detected, and is severe enough to impact wideband audio quality over time. The Wideband Line Quality Monitor is **ON** by default, but can be deactivated by selecting **OFF** and then **SAVE**. For shorter conference calls, the benefit of turning off the Wideband Line Quality Monitor is that it may be likely that your wideband call will end before any detectable degradation in audio quality can be detected, thus avoiding an unnecessary “drop” to narrowband.

LINE QUALITY MONITOR		
ON		
OFF	ON	SAVE



Passcode

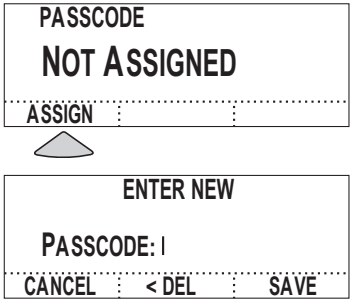
You have the option to decide if a passcode should be required to enter the Admin Setup area. If a passcode is required, you may select your own passcode.

When you select **PASSCODE** from the menu, the screen will display whether or not a passcode is currently assigned.

Assign a Passcode

If no passcode is currently assigned, you can press the **ASSIGN** soft key to create one.

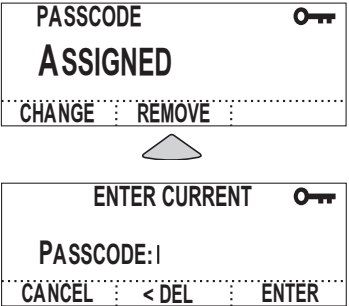
- ▼ Use the number keys to enter three digits, and then press the **SAVE** soft key.
- ▼ If you make an error, press the **<DEL** soft key to erase it.
- ▼ If you change your mind about assigning a passcode, press the **CANCEL** soft key.



Remove a Passcode

Removing a passcode means that you will no longer need a passcode to enter the Admin Setup area. After you press the **REMOVE** soft key, you will have to enter the current passcode before you can change it.

- ▼ Use the number keys to enter three digits, and then press the **ENTER** soft key.
- ▼ If you make an error, press the **<DEL** soft key to erase it.
- ▼ When you press the **ENTER** soft key, if the passcode you entered is incorrect, you will be notified to try again.
- ▼ Press the **CANCEL** key if you change your mind about removing the passcode.



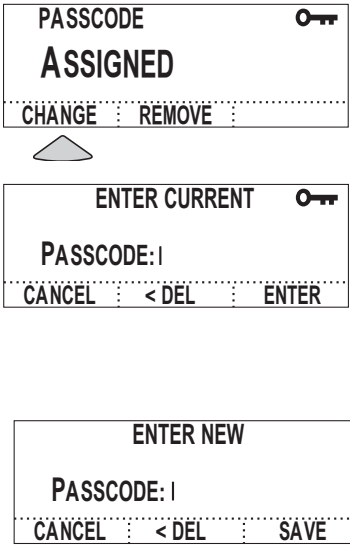
Assign a New Passcode

To change the passcode, press the **CHANGE** soft key. You will be asked to enter the current passcode before the SoundStation VTX 1000 will allow you to change it.

- ▼ Use the number keys to enter three digits, and then press the **SAVE** soft key.
- ▼ If you make an error, press the **<DEL** soft key to erase it.
- ▼ When you press the **ENTER** soft key, if the passcode you entered is incorrect, you will be notified to try again.

You will then be prompted to enter the new passcode.

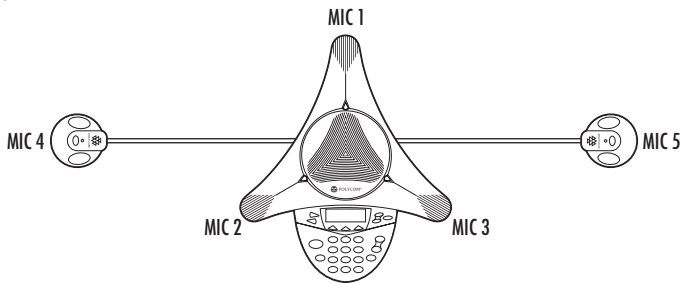
- ▼ Use the number keys to enter three digits, and then press the **SAVE** soft key.
- ▼ If you make an error, press the **<DEL** soft key to erase it.
- ▼ If you change your mind about changing the passcode, press the **CANCEL** soft key.



Diagnostics

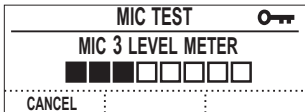
Mic Test

To test the SoundStation VTX 1000's microphones from within the Mic Test portion of the Diagnostics section, highlight the microphone you wish to test, and then press the **SELECT** button. The microphones are numbered according to the diagram below:



When you have selected a microphone:

- ▼ That microphone's LED will light up red.
- ▼ That microphone will begin sampling at a 1 Hz rate, 50% duty cycle.
- ▼ The display will show a meter that modulates according to the relative sample received by that microphone.



If a microphone's meter indicates that it is receiving an atypically low or high sample, despite appropriately controlled input, contact Polycom Technical Support.

Console Speaker Test

From the Console Speaker Test portion of the Diagnostics section, you can select an acoustic test signal to drive through the SoundStation VTX 1000's speaker for speaker testing and to sample the room acoustics.

Highlight the desired signal, and press the **SELECT** button soft key to activate the signal.

- ▼ Sine Sweep is a test signal consisting of a 100 Hz to 14,000 Hz sine wave whose frequency is swept according to a linear progression of frequency as a function of time, or $(t)=A*\sin(kt)$.
- ▼ One kHz Tone is a constant tone generated at exactly 1000 Hz.
- ▼ White Noise is a signal whose energy is distributed uniformly among all frequencies within a band of interest, which for the SoundStation VTX 1000 is 100 Hz to 14,000 Hz.

External Speaker Test

The External Speaker Test portion of the Diagnostics section works just as described above but drives the signal through the audio output device you have connected, such as a speaker, subwoofer, or PA system. (See the Connection Diagram, pg. 31, for setup of audio output devices. See also "Aux Output," pg. 19, for information on configuration.)

Note: The External Speaker Test signals can be used for the VTX Subwoofer (see "Using the VTX Subwoofer," pg. 22, and also see "Aux Output," pg. 19, for information on configuration), but output signal levels with the Subwoofer will not exceed 300 Hz.

Aux In and Aux Out Specification Table

External Device Output	Interface Module Input
Polycom Wireless Mic	
100 Hz < BW < 14 kHz Zout < 200 ohms, typical Max Vout 0.25 Vpp to 1.0 Vpp	100 Hz < BW < 14 kHz Zin = 24k ohms, nom
Ext Mic	
100 Hz < BW < 14 kHz Audio out = 600 ohms, typical Level = 0.5 Vpp, nom	100 Hz < BW < 14 kHz Zin = 24k ohms, nom
Ext Mixer	
100 Hz < BW < 14 kHz Audio out = 600 ohms, typical Level = 0.5 Vpp, nom	100 Hz < BW < 14 kHz Zin = 24k ohms, nom
External Device Input	Interface Module Output
Subwoofer	
80 Hz < BW < 300 Hz Input impedance = 7k ohms, nom Sensitivity = 97 dBspl/Volt	80 Hz < BW < 300 Hz Output Impedance < 100 ohms Output Level = 0.7 Vrms, max
External Speaker(s)	
80 Hz < BW < 14 kHz Audio In = 10k ohms, typical Sensitivity = 100 dBspl/Volt, nom	80 Hz < BW < 14 kHz Output Impedance < 100 ohms Output Level = 0.7 Vrms, max
Record Out	
80 Hz < BW < 15 kHz Audio in = 10k ohms, nom Level = 0.7 Vrms, max	80 Hz < BW < 14 kHz Output Impedance < 100 ohms Output Level = 0.7 Vrms, max

Modem Statistics

In the Modem Statistics portion of the Diagnostics section, you can view the SoundStation VTX 1000 modem performance for the last call that made use of a modem connection.

MONITORING LINE QUALITY	
→ TX BIT RATE	28800
RX BIT RATE	28800
SNR	+18
ROUND TRIP DELAY	30
CRC ERRORS	0

The statistics provided are:

- ▼ **Tx Bit Rate** (Transmit Bit Rate)
The achievable rate for sending data over a given phone line with the modem, in bits per second
- ▼ **Rx Bit Rate** (Receive Bit Rate)
The achievable rate for receiving data over a given phone line with the modem, in bits per second
- ▼ **SNR** (Signal to Noise Ratio)
A measure, in microvolts, of signal strength relative to background noise as expressed in decibels
- ▼ **Round Trip Delay**
The elapsed round trip time for transit of a signal over the analog telephone circuit
- ▼ **CRC Errors**
(Cyclical Redundancy Check Errors)
The cumulative number of lost data packets, a good measure of the robustness of the data connection

- ▼ **Monitoring Line Quality**
VTX 1000 provides text-based status indicators on the display to communicate the real-time operational details of the phone when testing line quality and negotiating wideband and narrowband connections. Below is a description of each.
 1. "Line Quality Standby"
This will be displayed if the prior phone call did not use the modem. (i.e. narrow band).
 2. "Monitoring Line Quality"
This is displayed during a wideband call.
 3. "Narrowband Select on Poor Sync"
This will be displayed if the local VTX 1000 decided to fall to Narrowband because it believed the modem had lost sync due to detected errors in V.34's so called superframe bit inversion synchronization pattern.
 4. "Narrowband Select on CRC Level 1"
This will be displayed if the unit detects a 15% or greater CRC Error Rate consistently at our local receiver for 60 seconds.
 5. "Narrowband Select on CRC Level 2"
This will be displayed if we detect a 20% or greater CRC Error Rate consistently at our local receiver for 6 seconds.

6. "Narrowband Select on CRC Level 3"
This will be displayed if the unit detects a 40% or greater CRC Error Rate consistently at our local receiver for 6 seconds.
7. "Narrowband Select on CRC Level 4"
This will be displayed if the unit detects an 80 % or greater CRC Error Rate consistently at our local receiver for 3 seconds.
8. "Wideband Signal Loss Detected"
This will be displayed if the remote VTX 1000 shut off wideband. This will also be displayed if the remote side hangs up.

Restore All Defaults

When you select Restore Defaults, you will be prompted to confirm or cancel the complete elimination of all settings and data that have been entered since the phone was first installed.

- ▼ Important: If you Restore Defaults, all data entered since the phone was first installed, including, but not limited to, all Settings, Audio Setup entries, Administrative Setup passcode and data, etc., is irretrievably lost.

Note: Phone Book entries and Speed Dial numbers are not lost when restoring all defaults.

Press the **OK** soft key to confirm that you wish to Restore Defaults, or the **CANCEL** soft key to return to the Diagnostics submenu without restoring defaults.

Software

Upgrade Software

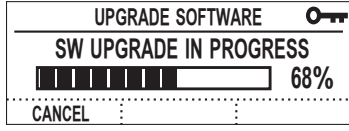
SoundStation VTX 1000 is the world's first analog telephone capable of software upgrades, via software download, over ordinary telephone lines. You can dial in to download software whenever free or purchased upgrades, improvements, or new functions are made available for your SoundStation VTX 1000.

(If no dialing number has ever been established for your SoundStation VTX 1000, then configure the dialing number as described in the next section, before proceeding with your upgrade.)

When you select Upgrade Software from the Software submenu, you will be prompted to indicate when you are ready for the SoundStation VTX 1000 to begin dialing in for a download. To initiate the process, press the **OK** soft key (or, to return to the Software submenu, press the **CANCEL** soft key).

Note: For an alternate way to receive upgrades, see "Configure as DL Server," pg. 43.

- ▼ The SoundStation VTX 1000 will dial, connect, and begin downloading. Displays will indicate the number being dialed, the connection rate, and then download progress.

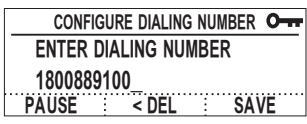


- ▼ Generally, the download will take about 12 minutes on a high quality line which achieves 24 kbps connection rates. If the connection rate is lower or the bit errors (due to line noise) are high, download could take up to 1 hour. If you wish to cancel the download process, press the **CANCEL** soft key. After a confirmation prompt, a message will indicate that downloading was cancelled. Press the **BACK** soft key to return to the Software submenu.
- ▼ Upon completion of the software downloading process, a secondary process of writing the software to memory will occur accompanied by a warning message to not unplug the unit during this secondary process. Writing software to memory takes approximately 1 minute 30 seconds, followed by a message indicating that download was successful. Once the successful download message is displayed, the phone is ready for use.

Configure Dialing Number

To download software, your SoundStation VTX 1000 needs the phone number of the VTX Download Server for your area. Use the number keypad to enter the dialing number that should be used, in the Configure Dialing area of the Software section.

Pressing the **PAUSE** soft key will insert a 1.5 second pause (shown as a comma), which is often necessary when dialing from a PBX (or other enterprise) system that requires a prefix such as 9 for an external call.



Configure as DL Server

Once a single SoundStation VTX 1000 within your organization has upgraded software, if you configure it as a download server, other VTX phones can call it to receive the upgrade, rather than each calling the main VTX Download Server for your area.

Any SoundStation VTX 1000 can be configured as a download server.

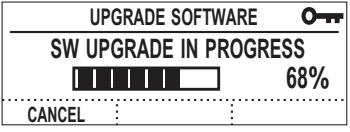
- ▼ When you select Configure as DL Server from the Configure Software Upgrade submenu, if the phone is not already configured as a server, you will be asked whether to activate it as a server. Press the **OK** soft key to activate it as a server, or the **CANCEL** soft key to return to the Configure Software Upgrade submenu.
- ▼ If, instead, the phone is already configured as a server when you select Configure as DL Server, you'll be asked whether to deactivate it as a server. Press the **OK** soft key to deactivate the phone as a server, or the **CANCEL** soft key to return to the Configure Software Upgrade submenu.

- ▼ New software download availability and dialing numbers for your area are posted on the SoundStation VTX 1000 page on Polycom's web site:

WWW.POLYCOM.COM

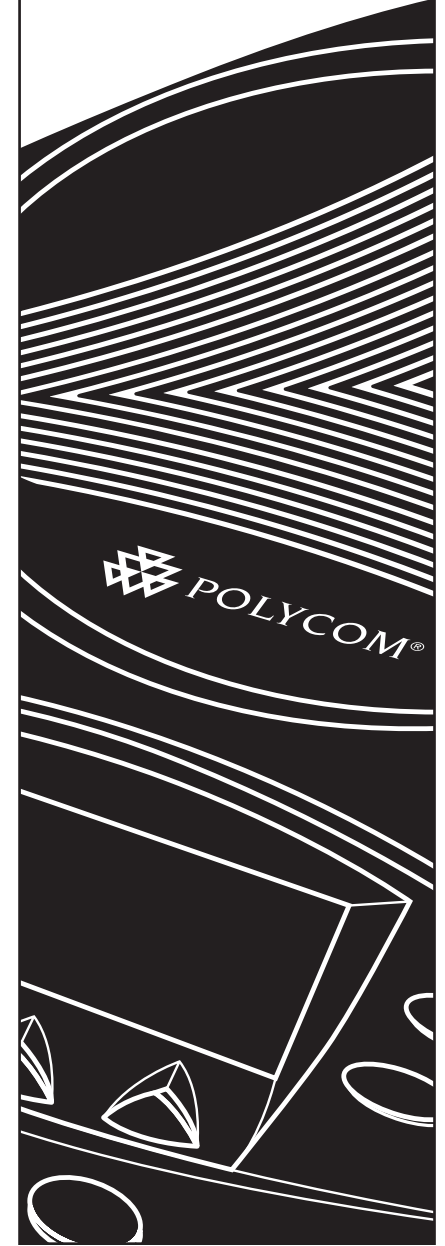
- ▼ If you make an error, use the **<DEL** soft key to erase it.
- ▼ Important: Press the **SAVE** soft key to retain the new dialing number and return to the Configure Software Upgrade submenu. Otherwise, you can use the **EXIT** button to return to the Software Submenu, or the **MENU** button to return to the Main Menu, but your new dialing number will not be saved.

Once a SoundStation VTX 1000 unit is configured as a download server, other SoundStation VTX 1000 units can dial into it to download software. The process of configuring the dialing number and upgrading software is identical when using another SoundStation VTX 1000 as your download server, as described on pg. 42.



Note: When VTX 1000 is configured for Server Mode, no audio calls are possible on VTX 1000 until it is deactivated as a download server.

Specifications and Warranty Information



Limited Warranty and Limitation of Liability

Limited Warranty

Polycom warrants to the end user (“Customer”) that this product will be free from defects in workmanship and materials, under normal use and service, for one year from the date of purchase from Polycom or its authorized reseller.

Polycom’s sole obligation under this express warranty shall be, at Polycom’s option and expense, to repair the defective product or part, deliver to Customer an equivalent product or part to replace the defective item, or if neither of the two foregoing options is reasonably available, Polycom may, in its sole discretion, refund to Customer the purchase price paid for the defective product. All products that are replaced will become the property of Polycom. Replacement products or parts may be new or reconditioned. Polycom warrants any replaced or repaired product or part for ninety (90) days from shipment, or the remainder of the initial warranty period, whichever is longer.

Products returned to Polycom must be sent prepaid and packaged appropriately for safe shipment, and it is recommended that they be insured or sent by a method that provides for tracking of the package. Responsibility for loss or damage does not transfer to Polycom until the returned item

is received by Polycom. The repaired or replaced item will be shipped to Customer, at Polycom’s expense, not later than thirty (30) days after Polycom receives the defective product, and Polycom will retain risk of loss or damage until the item is delivered to Customer.

LIMITATION OF LIABILITY. TO THE FULL EXTENT ALLOWED BY LAW, POLYCOM EXCLUDES FOR ITSELF AND ITS SUPPLIERS ANY LIABILITY, WHETHER BASED IN CONTRACT OR TORT (INCLUDING NEGLIGENCE), FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES OF ANY KIND, OR FOR LOSS OF REVENUE OR PROFITS, LOSS OF BUSINESS, LOSS OF INFORMATION OR DATA, OR OTHER FINANCIAL LOSS ARISING OUT OF OR IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE, USE, PERFORMANCE, FAILURE, OR INTERRUPTION OF ITS PRODUCTS, EVEN IF POLYCOM OR ITS AUTHORIZED RESELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, AND LIMITS ITS LIABILITY TO REPAIR, REPLACEMENT, OR REFUND OF THE PURCHASE PRICE PAID, AT POLYCOM’S OPTION. THIS DISCLAIMER OF LIABILITY FOR DAMAGES WILL NOT BE AFFECTED IF ANY REMEDY PROVIDED HEREIN SHALL FAIL OF ITS ESSENTIAL PURPOSE.

Exclusions

Polycom will not be liable under this limited warranty if its testing and examination disclose that the alleged defect or malfunction in the product does not exist or results from

- ▼ Failure to follow Polycom’s installation, operation, or maintenance instructions;
- ▼ Unauthorized product modification or alteration;
- ▼ Unauthorized use of common carrier communication services accessed through the product;
- ▼ Abuse, misuse, negligent acts or omissions of Customer and persons under Customer’s control; or
- ▼ Acts of third parties, acts of God, accident, fire, lighting, power surges or outages, or other hazards.

WARRANTY EXCLUSIVE. IF A POLYCOM PRODUCT DOES NOT OPERATE AS WARRANTED ABOVE, CUSTOMER’S SOLE REMEDY FOR BREACH OF THAT WARRANTY SHALL BE REPAIR, REPLACEMENT, OR REFUND OF THE PURCHASE PRICE PAID, AT POLYCOM’S OPTION. TO THE FULL EXTENT ALLOWED BY LAW, THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, TERMS, OR CONDITIONS, EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION

OF LAW, STATUTORY OR OTHERWISE, INCLUDING WARRANTIES, TERMS, OR CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, SATISFACTORY QUALITY, CORRESPONDENCE WITH DESCRIPTION, AND NON-INFRINGEMENT, ALL OF WHICH ARE EXPRESSLY DISCLAIMED. POLYCOM NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE OR USE OF ITS PRODUCTS.

Service Agreements

If you purchased your product from a Polycom Authorized Reseller, contact the Authorized Reseller for information about service agreements applicable to your product. For technical assistance

or information on service programs, please visit Polycom’s website at www.polycom.com and select the Support menu.

Disclaimer

Some countries, states, or provinces do not allow the exclusion or limitation of implied warranties or the limitation of incidental or consequential damages for certain products supplied to consumers, or the limitation of liability for personal injury, so the above limitations and exclusions may be

limited in their application to you. When the implied warranties are not allowed to be excluded in their entirety, they will be limited to the duration of the applicable written warranty. This warranty gives you specific legal rights which may vary depending on local law.

Governing Laws

This Limited Warranty and Limitation of Liability shall be governed by the laws of the State of California, U.S.A., and by the laws of the United States, excluding their conflicts of laws principles. The

United Nations Convention on Contracts for the International Sale of Goods is hereby excluded in its entirety from application to this Limited Warranty and Limitation of Liability.

FCC Rules

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause

harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ▼ Reorient or relocate the receiving antenna.
- ▼ Increase the separation between the equipment and receiver.
- ▼ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ▼ Consult the dealer or an experienced radio/TV technician for help.

In accordance with part 15 of the FCC rules, the user is cautioned that any changes or modifications not expressly approved by Polycom Inc. could void the user's authority to operate the equipment.

Canadian Department of Communications Notice

This Class [B] digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe [B] est conforme à la norme N M B-003 du Canada.

US Telco Requirements

This equipment complies with part 68 of the FCC Rules. Please refer to the labeling on equipment for the following information:

- ▼ Registration Number
- ▼ Ringer Equivalence
- ▼ Grantee's Name
- ▼ Model Number
- ▼ Serial Number and/or Date of Manufacture
- ▼ Country of Origin

If requested this information must be provided to the telephone company

Notes:

- ▼ This registered equipment may not be used with party lines or coin lines.
- ▼ If trouble is experienced, the customer shall disconnect the registered equipment from the telephone line to determine if the registered equipment is malfunctioning and that if the registered equipment is malfunctioning, the use of such equipment shall be discontinued until the problem has been corrected.

- ▼ If, in the unlikely event that this equipment causes harm to the network, the telephone company will notify you in advance that temporary discontinuance of service may be required. However if advance notice is not practical, the telephone company will notify you as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it necessary.
- ▼ The telephone company may make changes to its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice so you can make the necessary modifications to maintain uninterrupted service.

REN

The REN is used to determine the quantity of devices that may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming

call. Typically the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line (as determined by the total RENs) contact the local telephone company.

Automatic Dialing

WHEN PROGRAMMING EMERGENCY NUMBERS AND/OR MAKING TEST CALLS TO EMERGENCY NUMBERS:

1. Remain on the line and briefly explain to the dispatcher the reason for the call.
2. Perform such activities in the off-peak hours, such as early morning or late evening.

Telco Connector

A FCC compliant telephone cord and modular plug is provided with this equipment. This equipment is designed to be connected to the telephone network or premises wiring using a compatible

modular jack that is Part 68 complaint. See the rest of these installation instructions for details.

Canadian Telco Requirements

“NOTICE: The Industry Canada label identifies certified equipment. This certification means that the equipment meets telecommunications protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the equipment will operate to the user’s satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations. Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Caution: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.”

“NOTICE: The Ringer Equivalence Number (REN) assigned to each relevant terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.”

The term “IC:” before the certification/ registration number dignifies only that the Industry Canada technical specifications were met.

CE Mark R & TTE Directive

This SoundStation VTX 1000 has been marked with the CE mark. This mark indicates compliance with EEC Directives 89/336/EEC, 73/23/EEC 1999/5/EC. A full copy of the Declaration of Conformity can be obtained from Polycom Ltd, 270 Bath Road, Slough, Berkshire, SL1 4DX, UK.

Declaration of Conformity

Hereby, Polycom Ltd. declares that this SoundStation VTX 1000 is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

Konformitetserklæring

Hermed erklærer Polycom Ltd., at indestående SoundStation VTX 1000 er i overensstemmelse med de grundlæggende krav og de relevante punkter i direktiv 1999/5/EF.

Konformitätserklärung

Hiermit erklärt Polycom Ltd., dass der SoundStation VTX 1000 die grundlegenden Anforderungen und sonstige maßgebliche Bestimmungen der Richtlinie 1999/5/EG erfüllt.

Δήλωση Συμμόρφωσης

Δια του παρόντος, η εταιρεία Polycom Ltd. δηλώνει ότι η παρούσα συσκευή (δρομολογητής) SoundStation VTX 1000 πληροί τις βασικές απαιτήσεις και άλλες βασικές προϋποθέσεις Οδηγίας 1999/5/EK.

Vaatimustenmukaisuusvakuutus

Polycom Ltd. vakuuttaa täten, että SoundStation VTX 1000 on direktiivin 1999/5/EC keskeisten vaatimusten ja sen muiden tättä koskevien säännösten mukainen.

Déclaration de Conformité

Par la présente, Polycom Ltd. déclare que ce SoundStation VTX 1000 est conforme aux conditions essentielles et à toute autre modalité pertinente de la Directive 1999/5/CE.

Dichiarazione di Conformità

Con la presente Polycom Ltd. dichiara che il SoundStation VTX 1000 soddisfa i requisiti essenziali e le altre disposizioni pertinenti della direttiva 1999/5/CE.

Verklaring Van Overeenstemming

Hierbij verklaart Polycom Ltd. dat diens SoundStation VTX 1000 voldoet aan de basisvereisten en andere relevante voorwaarden van EG-richtlijn 1999/5/EG.

Declaração de Conformidade

Através da presente, a Polycom Ltd. declara que este SoundStation VTX 1000 se encontra em conformidade com os requisitos essenciais e outras disposições relevantes da Directiva 1999/5/CE.

Declaración de Conformidad

Por la presente declaración, Polycom Ltd. declara que este SoundStation VTX 1000 cumple los requisitos esenciales y otras cláusulas importantes de la directiva 1999/5/CE.

Överensstämmelseförklaring

Polycom Ltd. förklarar härmed att denna SoundStation VTX 1000 överensstämmer med de väsentliga kraven och övriga relevanta stadganden i direktiv 1999/5/EG.

Australia

Mains Powered POT's Voice
Telephony Without Emergency
000 Dialing

Warning

This equipment will be inoperable
when mains power fails

Japan

VCCI Class B

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づいてクラスB情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、電波障害を引き起こすことがあります。
取扱説明書に従って正しい取扱いをして下さい。



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Technical Support in the United States
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Pleasanton, CA 94588

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1725-07246-001 Rev B